



Kodak

i1800 Series Scanners

Key Operator Guide

Key Operator Training

Welcome to the enhanced *Kodak* i1800 Series Scanner Key Operator Training. This course is designed to provide you with a thorough understanding of the operation and care of your new state-of-the-art, high-speed document scanner. All new *Kodak* i1800 Series Scanners include this training course as a professional service during installation to ensure that your site (and any other sites your company may have) will be able to achieve peak productivity starting from the day of scanner installation.

Checklist

Following is a summary of the topics that will be covered. This class will require between 1.5 and 2 hours of dedicated class time to complete.

- Introduction
- Review of Resources
- Scanner orientation
- Document journey through the transport
- Replacement of consumables
- Maintenance
- Calibration
- What type of scanning does your site do?
- Basic printing
- Overview of accessories
- OCP and touchscreen overview
- Scan Validation Tool
- Troubleshooting
- Service issues
- Safety
- Other issues

INTRODUCTION

This training program provides you with the hands-on experience you need to be able to operate the scanner. All of the physical aspects of operating and maintaining the scanner will be demonstrated, with opportunities for you to interact with the scanner, with the assistance of a Kodak trained engineer. Procedures for replacement of consumables and the recommended scanner cleaning regime will be covered.

The operation of your site's particular scanning application and procedures will not be covered as part of this training. The *Kodak i1800 Series Scanner* is supported by a number of different scanning applications that have been developed by many companies around the world. We recommend that you request software and image processing training from the original software vendor who knows these products best. If your site has chosen *Kodak Capture Software* as your scanning application, then we would be glad to arrange a separate training session that is customized to meet your particular needs.

REVIEW OF RESOURCES

As you gain experience with the scanner you may have questions about different features and capabilities that did not occur to you during the class today. In order to help you find answers you need in the future, we have compiled this list of resources and what you will find in each.

➤ **User's Guide**

Publication A-61555: One hard copy (English) is included with a new scanner and other languages are in PDF in the \UserGuide folder on the *Kodak i1800 Series Scanner Firmware, Drivers and Users Guide CD*.

This is the place to go for 'how to' type questions related to the operation of the scanner. Much of what will be covered here is detailed in the User's Guide; from how often to change the pre-separation pad to how to change the sound that is used for the multifeed alarm.

➤ **Quick Tips Guide**

Publication A-61556: One hard copy version in all languages is included with the scanner and in PDF in the \Documentation folder of the *Kodak i1800 Series Scanner Firmware, Drivers and Users Guide CD*.

This is a handy reference card for quickly finding catalog numbers for consumables or a reminder of proper cleaning procedures at the end of your shift.

➤ **Image Processing Guide**

Publication A-61580: A PDF version, in English only, is included in the \Documentation folder of the *Kodak* i1800 Series Scanner Firmware, Drivers and Users Guide CD.

This is the complete reference for the many different ways this scanner can capture images. “What are all those options for image quality on the TWAIN or ISIS driver for?” Or “How do I setup my level to follow level rules for 3 level indexing?” Those answers and more are in the Image Processing Guide. As an operator, this level of information should not be needed, but if you are involved in job setup you will be glad to have all of the capabilities of the scanner spelled out for you in this guide.

➤ **Installation Planning Guide**

Publication A-61578: A PDF version, in English only, is available from a Kodak FE or RTC (Regional Technical Coordinator).

This guide should have been provided to your site well before the installation date and should have been used as a guide for planning for the installation day. This document gives details on the site specification requirements (such as power quality) and layout expectations for both you and Kodak during the scanner’s installation.

➤ **Brightness & Contrast Control Reference Guide**

Publication A-61587: A PDF version, in English only, is available on the Brightness and Contrast Control CD.

This guide should be referenced when using the Brightness and Contrast Controls utility if you ever need to create custom ‘color tables’ that allow you to control the colors that are used to create your images. Again, like the Image Processing Guide, as an operator only, this level of information should not be needed unless you are involved with job setup.

➤ **Supplies and Consumables Catalog**

Publication A-61403: A PDF version, in English only, is included in the \Documentation folder of the *Kodak* i1800 Series Scanner Firmware, Drivers and Users Guide CD.

This is where you will want to go to determine the size of a consumables kit you want to order: Large, Extra Large, or Extra Extra Large. All consumables for all *Kodak* Document Scanners are listed here.

➤ **On-line Help**

Our scanner driver (TWAIN) now includes a complete on-line help system that, if needed, can provide you with on-line help to understand scanner settings. Access to this tool is dependent on the scanning application that you are using. If your software allows access, this on-line help can be a great way of getting your questions answered quickly.

➤ www.Kodak.com

The latest scanner information and drivers can always be found on our website. To make it easier for you to get to the pages related to our document scanners, use these URLs:

www.kodak.com/go/di	General information on Document Imaging Scanners
www.kodak.com/go/disupport	Scanner Firmware and Driver updates for free download and publications in PDF format.

Kodak frequently adds features to our scanners though driver updates so your scanner application support can go to our website for the most up-to-date information. Also, if you cannot find a copy of your User's Guide or other publications, the website provides PDF files that can be easily downloaded.

ACTION

Create a folder on the scanner's host PC desktop called "Kodak Scanner Manuals" and copy these files from the *Kodak i1800 Series Scanner Firmware, Drivers and Users Guide* CD into that folder so they will be at the operator's fingertips if needed.

User Guide (x:\UserGuide\ **User's Guide xxx.pdf**)

Supplies and Consumables (x:\Supplies and Consumables.pdf)

Quick Tips Guide (x:\Documentation\English\Quick Tips Guide.pdf)

Also within that folder create a shortcut to the web page www.Kodak.com/go/disupport.

ACTION

Be sure the hard copy of the Users Guide and Quick Tips Guide is properly stored in the pocket inside the door of the scanner's base.

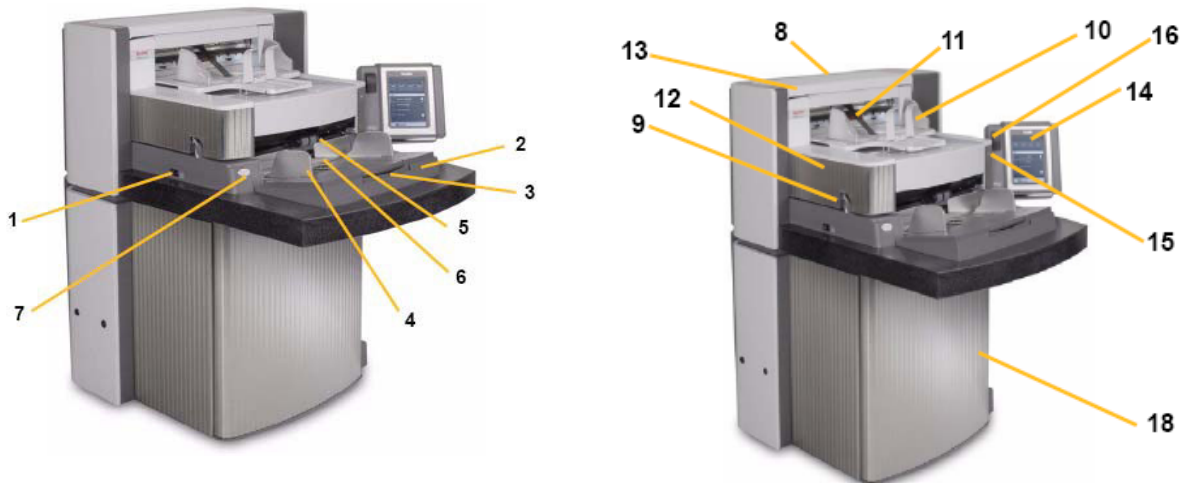
SCANNER ORIENTATION

You will now have a demonstration of the scanner using the Count Only mode and the instructor will point out the basic components of the *Kodak i1800 Series Scanner*.

There are two power switches, but the main power switch on the back of the scanner will rarely be used.



Front view



- | | | | |
|---|----------------------------|----|--|
| 1 | Power switch | 8 | Service K number |
| 2 | Input elevator | 9 | POD release |
| 3 | Input elevator extender | 10 | Output tray and end stop |
| 4 | Input elevator side guides | 11 | Exit deflector |
| 5 | Feed module | 12 | Front printer access cover |
| 6 | Paper present sensor | 13 | Rear printer access cover |
| 7 | Gap release button | 14 | Touchscreen |
| | | 15 | LED |
| | | 16 | Workspace table height adjustment switch |
| | | 17 | Height adjustment wire |
| | | 18 | Door with storage pocket inside |

ACTION

Have each student adjust the scanner to their personal height and scan a stack of documents in Count Only mode.

DOCUMENT JOURNEY THROUGH THE TRANSPORT

Now that you have experienced the scanner from the operator's point of view we will walk you through the scanner from the document's point of view. We will follow the path of a document from its start in the input elevator, to separation from the stack, to ultrasonic double-feed detection, to rear side imaging, then front side imaging and finally output restacking. This perspective allows us to talk about the various parts of the scanner transport in a logical sequence. The instructor will describe important components that will be referred to later in this course. This basic understanding of the scanner's transport allows you, as the operator, to be more comfortable with the equipment and more productive.

- Note the green caution labels
- Stage one: Input elevator
 - Independently adjustable side guides for offset scanning
 - Paper present sensor
 - Lock/Unlock switch
 - Long document wire bail
 - The host scanning application can be used to set the elevator to four different starting heights.
- Stage two: Document separation from the stack
 - Opening the pod
 - Location and functions of the:
 - pre-separation pad
 - separation roller
 - feed module
 - Demonstrate that there is a Gap Release button that lowers the separation roller to allow feeding of very thick or damaged documents.
- Stage three: Pre-imaging document transportation
 - Review transport rollers, UDDS sensors and patch head sensors.
 - Review printer baffle; remove front printer background strips and show front ink blotters.
- Stage four: Imaging
 - Image Background. Remove and talk about scratches. Talk about white background accessory and use.
 - Imaging Guides (upper and lower). Talk about the white patch, removal of the imaging guides, and how to clean imaging guides using Staticide wipes. Point out that the upper imaging guide has ribs to prevent ink from smearing and the lower imaging guide does not.
 - Lamps. Not customer replaceable.
NOTE: The bottom lamps have a cover glass between them but the upper lamps do not. **Do not** insert anything into the upper camera area.

- Stage five: Post-imaging document transportation
 - Rear ink blotters; show the location and how to replace them.
- Stage six: Output re-stacking
 - Review the output tray: side guides and end stop. Review the various positions that the output tray can be placed in using the wire legs on the bottom of the tray. Also mention the long document wire bail and the short document stacker.

ACTION

Answer any questions regarding the components of the transport.

REPLACEMENT OF CONSUMABLES

In this section the instructor will identify all the consumables (parts of the scanner that will wear out during normal use) and instruct you on the proper procedures for the replacement of these items. Just as changing the oil and replacing worn tires on your car is necessary to keep it running properly, the timely replacement of the scanner's consumables is critical to its performance. As an operator, you will experience fewer paper feeding problems if the consumables are replaced when they are worn.

Open the User's Guide to the Replacement Procedures in the Maintenance chapter.



Pre-separation pad: it is recommended that you change the pre-separation pad approximately every 250,000 documents.



Feed module tires and separation roller tires: tire life will vary depending upon paper types, environment and cleanliness. Nominal tire life for clean, non-NCR, US letter size, 20 lb bond paper, documents fed in landscape orientation is approximately 600,000 documents; results will vary. Degradation of feeder performance, multiple feeds, stoppages, etc. indicate a need to change tires. Change all tires on the feed module and separation roller at the same time.



Feed Module: replace after every 4th replacement of tires, approximately after 2,400,000 scans. Install a new feed module and separation roller at the same time.

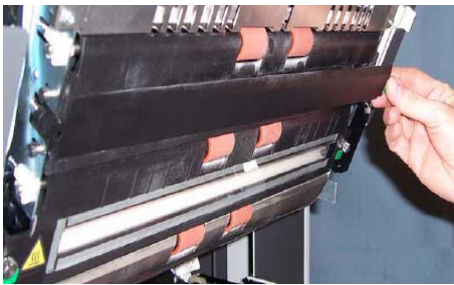


Separation roller: replace after every 4th replacement of tires, approximately after 2,400,000 scans. Install a new feed module and separation roller at the same time.

Tip: Suggest that the customer have a feed module and separation roller with new tires installed ready to go. The customer could then change the feed module and separation rollers quickly and avoid down-time. The tires can be changed on the feed module and separation roller off line.



Imaging guides: replace only when the imaging guides are heavily scratched and defects show in the scanned images. Image defects that are normally caused by scratched image guides are lines or streaks in the image in the direction that the paper is moving through the transport.



Backgrounds: replace only when the backgrounds are scratched and defects show in the scanned images. Image defects that are normally caused by scratched black backgrounds are black borders on the left or right side of an image (assuming the image is not rotated).

ACTION

- Show the students the Replacement Procedures in the Maintenance chapter in the User's Guide.
- Each student should individually remove and replace each these items including replacing tires on the feed module and separation roller.
- Copy the Consumable Replacement Log sheet at the end of this Training Guide and instruct the students to keep this in the storage compartment on the inside door of the scanner and update it whenever replacing a consumable.

MAINTENANCE

All paper scanners that transport documents create paper dust and collect ink residue on the components of the transport that come into contact with the paper. This section of the class will detail the proper cleaning procedures for your scanner. The most frequent image quality problems with document feeding scanners are lines or streaks in the scanned image and black image borders (which are almost always caused by dust on the imaging components of the scanner). A Kodak recommended cleaning frequency schedule will be covered that, if followed, should prevent any unnecessary interruptions in scanning or service calls due to problems related to improper maintenance. The instructor will also review the equipment you should purchase (vacuum) and supplies that should be used when cleaning the scanner. We will also cover some things that should not be done when cleaning the scanner as they may damage the scanner.

- Open the User's Guide to Chapter 5, *Maintenance* and the review the complete scanner cleaning procedure noting the following:
 - Vacuuming the transport is essential to removing dust.
 - Streaks or lines in the scanned image that are in the direction of the documents travel are likely caused by dust or debris on the imaging guides or in the image path (lower cover glass between the lamps). Also note that the back side of the imaging guides must be cleaned as well as the front side.
 - The front side of the imaging guide is in the top or pod side of the transport and the rear side of the imaging guide is in the bottom or base side of the transport. If a streak is visible on the front side scanned image, then clean the imaging guide in the pod.
 - For the scanning of the back of documents there is a cover glass that is beneath the lower imaging guide that may collect dust during scanning. When cleaning the scanner, be sure to remove the lower imaging guide and clean this cover glass.
- Review the Quick Tips Guide noting the frequency chart for maintenance procedures.

SCANNER LED	
Color	Function
Green	Steady: When the power switch is turned on, the scanner will go through a power-up sequence and display the idle screen when the scanner is ready. Flashing: Scanner is in power saver mode. To resume, if there is paper in the input elevator, take the paper out and pull it back in, or if no paper is in the input elevator, put paper in.

VIEWING THE OPERATOR LOG

Chapter 5, Troubleshooting, in the User's Guide provides a description of the operator messages as well as a Problem Solving chart. The Operator Log can be accessed by touching **Operator Log** on the touchscreen or through the Scan Validation Tool.

Accessing the Operator Log from the touchscreen:

- From the idle screen, touch **Operator Log**.

NOTE: The Operator Log only displays messages since the last power-cycle of the scanner, while the Scan Validation Tool can display all messages that have occurred.

Accessing the Operator Log from the Scan Validation Tool

1. Select **Start-Programs>Kodak-Document Imaging-Scan Validation Tool**.
2. From the Driver Types box, select **TWAIN**.
3. From the Drivers box, select **Kodak Scanner: i1800** and click **OK**.
4. Click the **Scanner** icon to display the Main screen.
5. Click the **Settings** button to display the Settings screen.
6. Click the **Device** button to display the Device screen.
7. Click the **Diagnosics** button to display the Diagnostics screen.
8. From the Logs tab, select **Operator** from the drop-down box to display the Operator Log.

CLEANING AND MAINTENANCE

Cleaning your scanner and preventative maintenance on a regular basis is required to ensure the best possible image quality.

NOTE: Certain document types generate more paper dust and debris and may require more frequent cleaning than recommended.

Following is a recommended preventative maintenance procedure to prevent costly interruption during production scanning.

- IMPORTANT:**
- The Roller Cleaning Pad contains sodium lauryl ether sulfate and sodium silicate which can cause eye irritation. Refer to the MSDS for more information.
 - Staticide wipes contain isopropanol which can cause eye irritation and dry skin. Wash your hands with soap and water after performing maintenance procedures. Refer to the MSDS for more information.
 - Use only the recommended cleaning supplies.
 - Do not use canned/compressed air.

PROCEDURES

Task # / Procedure	Start of day	Middle of shift	Start of new shift
3 Vacuum output tray and input areas	x		
5 Clean all rollers	x		x
6 Vacuum transport area	x	x	x
7 Remove and vacuum under background strips	x		
8 Remove and clean imaging guides	x		x
9 Vacuum under imaging guides	x	x	x
16 Run transport cleaning sheet	x		
18 Wipe imaging guides with cloth	x	x	x

For detailed cleaning and replacement procedures, see Chapter 5, Maintenance in the User's Guide. Several of the cleaning procedures require the use of a vacuum cleaner and attachments (i.e., small brush, crevice tool, etc.).

- TASKS**
- 1 Turn off the scanner.
 - 2 Remove the output tray.
 - 3 Vacuum the output tray area and the input area (input elevator) using a brush attachment of a vacuum cleaner.
 - 4 Open the pod.
 - 5 Clean all rollers/tires with a roller cleaning pad (i.e. upper and lower rollers, feed module tires and separation roller tires). Inspect the tires and pre-separation pad for wear and replace if necessary.
 - 6 Clean the transport area using a brush attachment of a vacuum cleaner. When cleaning this area, pay particular attention to the following areas:
 - the edges of the transport
 - the reflective tape near the front of the transport
 - the reflective tape near the front of the pod
 - the three muted sensors at the base of the transport and the pod
 - 7 Remove the upper and lower background strips and vacuum these areas. When finished, reinsert the strips.
 - 8 Remove the upper and lower imaging guides.
 - 9 Using the crevice tool, vacuum any dust and debris in the imaging guide area particularly on the glass plate between the lower lamps.
 - 10 Clean both sides of the imaging guides with a Staticide wipe.
 - 11 Dry the imaging guides with a dry Staticide wipe.
 - 12 Inspect the imaging guides for any scratches and replace them if necessary.
 - 13 Reinstall both imaging guides.
 - 14 Close the pod.
 - 15 Turn on the scanner.
 - 16 Run a transport cleaning sheet through the transport.
 - 17 Open the pod.
 - 18 Wipe the exposed side of the imaging guides with a lint-free cloth.
 - 19 Close the pod and scan a test image to ensure image quality.

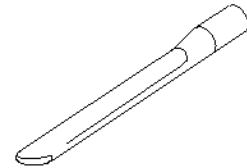
- Review the proper materials used in cleaning
 - **Vacuum:** a good quality vacuum with non-conductive brush and crevice tool is recommended.



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CALIBRATION

This topic will review the Image and UDDS calibration needs of the i1800 Series Scanner.

➤ Image Calibration

The scanner was designed to operate for hundreds of hours before image re-calibration is required. Image calibration is only required to compensate for the change of light intensity from the lamps over time. You should only perform image calibration if the scanner posts a message indicating that image calibration is required. Image calibration must be performed on a clean scanner. The imaging guides and lower cover glass must be completely free of dust or contamination before Image calibration is performed. If Image calibration is performed without a thorough cleaning of the image path, streaks or lines will appear in the image after just a few scans. These image quality problems are caused because calibration has compensated for an obstruction in the image path that will move locations as pages are fed through the scanner. Performing an Image calibration on a dirty scanner is calibrating the dust into the image processing of the scanner.

- Only calibrate the scanner when the scanner indicates that it needs to be calibrated with a 'Calibrate Now' message.
- Never calibrate a dirty scanner.
- If an image 'Calibrate Now' message is displayed, Image calibration should only be performed using the 12 x 12-inch all-white calibration target.

➤ UDDS Calibration

UDDS calibration is designed to adjust the Ultrasonic Double Document Detection sensors of the scanner. During normal scanner operation, this calibration should not be required. Only perform the UDDS calibration if a message is posted that indicates that a UDDS Calibration is required.

- If a UDDS calibration message is displayed, UDDS calibration should only be performed using a US letter or A4 size sheet of 20 lb. or 75 g/m² bond paper fed in the center portrait feeder orientation.

WHAT TYPE OF SCANNING DOES YOUR SITE DO?

You should now have a solid understanding of the basic operation of the scanner. The following topics (Printing / Touchsreen / Accessories) deal with operations that will vary depending on the type of scanning that is being performed. If the instructor does not yet have an understanding of the different types of scanning that you expect to perform, the instructor will ask you about your scanning jobs so that he/she may customize the following topics:

- Does your site intend to use image addressing?
- Do you ever print on the documents during scanning?
If yes:
 - Would you need front pre-scan printing or rear post-scan printing or both?
 - Do your printing needs include being able to print high resolution characters across the page as opposed to down the page in the direction the document goes through the transport?
- Does your site use patch separator sheets?
- Do you scan documents longer than 17 inches?
- Do you scan very thin documents?
- Do you have jobs with documents that you need to hand-feed one at a time?

ACTION

The instructor should understand and review the basic site scanning needs, and adjust the remaining sections as needed.

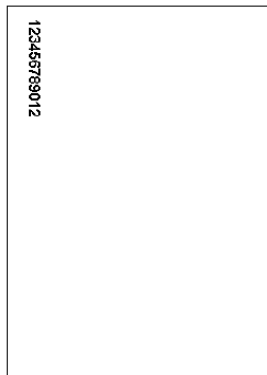
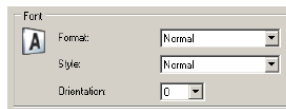
BASIC PRINTING

If your site is will be using the Enhanced Printer the replacement and maintenance will be an important part of operating the scanner.

Skip this section if your site does not currently print and does not plan to print on your documents in the future.

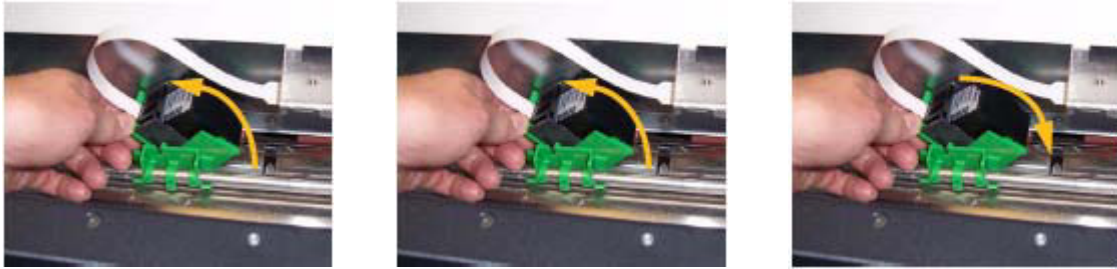
Open the User's Guide to Chapter 4, *The Enhanced Printer and Patch Readers* and review the complete printing procedure noting the following:

- The Enhanced Printer will allow printing of up to 40 characters down the page in the direction of the paper transport.

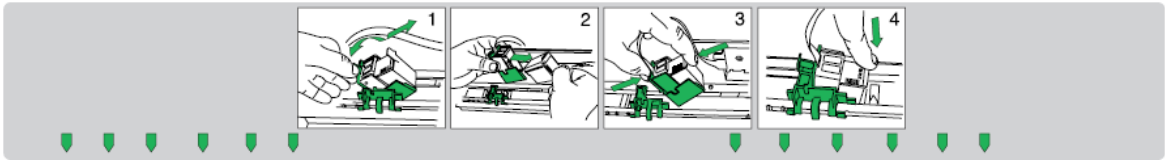


- Explain the use of front and rear printing
 - **Front Pre-scan:** Prints on the front side of the page BEFORE it is scanned. The characters printed on the page will show in the image file that is scanned. This is the most common printing mode and is frequently used to imprint the image address of the image on the document so that image may be tracked in a company's Document Management system. It is also useful if a re-scan of a document is required; the physical page can easily be identified. The scan date and time is another frequently printed string for front side pre-scan printing.
 - **Rear Post-Scan:** Prints on the back side of the page AFTER it is scanned. The characters printed on the page will NOT show in the image file that is scanned. This printing mode is not as common as front side pre-scan printing. This printing is often used for legal applications where the images being scanned cannot show any markings on the original documents.
- Demonstrate the locations and access to the front and rear printing areas.

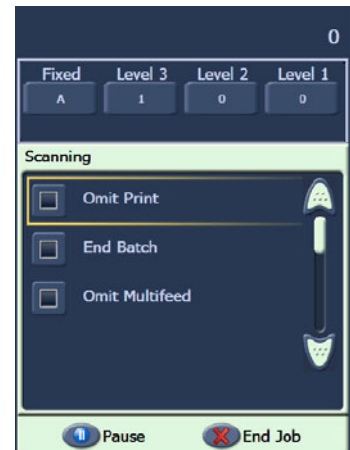
- Show replacement of the ink cartridge using the front side printer.



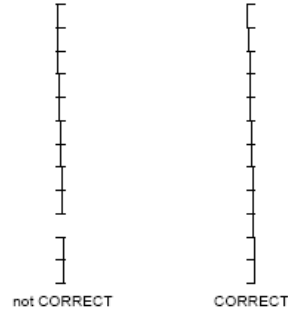
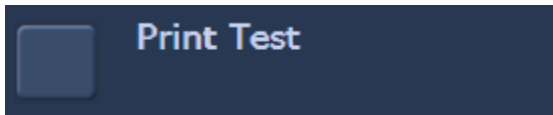
- Show location of horizontal print positions for front and rear printing. Also note that the location of the side guides and the justification of the documents in the input tray will determine the location of the printing on the page.



- Demonstrate how to change from front to rear printing.
 - Move the carrier first and then reboot the scanner
- Show replacement of the front and rear ink blotters.
- Your host application may enable the **Omit Print** option when scanning, that when touched, will prevent printing on the next document. Printing is only disabled for one document when this option is selected.



- There is a Print Test function available on the touch screen of the scanner. This test will print a 'ladder' target where each vertical line is printed by one of the jets in the print head. If a line is missing, one of the jets is not working. Dabbing the print head with a Staticide wipe will often open clogged jets. Remember to use plain white paper when running the print test.



ACTION

Each student should remove and replace an ink cartridge.

NOTE: Running a Print Test will be covered later in this class.

OVERVIEW OF ACCESSORIES

This section covers the accessories that are available for the i1800 Series Scanner. The scanning needs of your site may require the use of all or none of these accessories, depending on the type of documents that you will be scanning and your printing requirements.

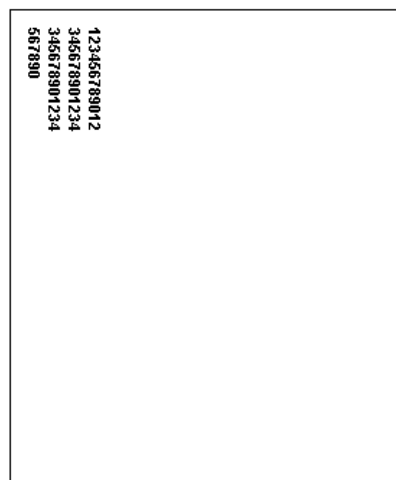
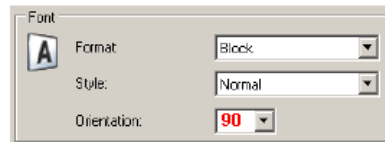
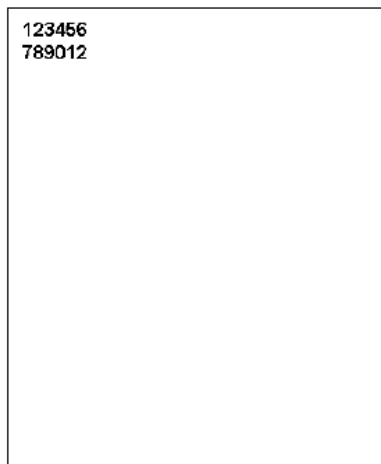
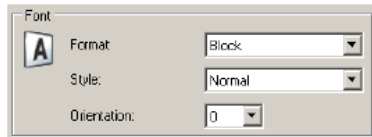
➤ Short Document Output Tray

This accessory was shipped with your scanner and should be used if you are scanning stacks of checks or other check-size documents.



➤ High Resolution Printer

- This is a purchased accessory that will provide 600 dpi front side pre-scan printing (the standard Enhanced Printer is 96 dpi). A Kodak Field Engineer must install the High Resolution Printer.
- Changing to rear printing is not possible after the High Resolution Printer is installed.
- Block mode printing format is available only with the High Resolution Printer. This format will allow for up to 6 characters to be printed across the paper.



➤ **Manual Feed Shelf**

This is a purchased accessory that can be installed and removed by the customer. The Manual Feed Shelf is used when the scanned documents must be hand-fed one at a time. When the Manual Feed Shelf is installed, the tires on the feed module will always be turning to allow paper to be pulled into the transport as soon as the paper enters the feeder.



➤ **White Background Accessory**

The White Background Accessory is a purchased replacement for the standard Black Background strips that come with the scanner. The Black Background strips that are magnetically attached are easily removed to allow for customer installation of the White Background strips. If the documents that you are scanning are very thin, the standard black backgrounds may show through the paper and create shadows in color or grayscale documents or 'noise'/specks in black and white documents. When changing between the black and white backgrounds, the scanner must be rebooted. When the white backgrounds are installed the scanner will not be able to perform image auto cropping and border removal. Black backgrounds are also required when performing image calibration.

➤ **Long Document Extension Wires**

If your site is scanning documents longer than 17 inches, ask your Field Engineer to provide up to two of these extension wires (one for the input tray and one for the output tray) at no charge. If more than two are required, they may be purchased through Kodak Parts Services.



These extensions attach to the input and/or output trays to help support longer documents as they are fed into the transport and exit the transport. Three sizes are available:

Part No.	Description	Input tray	Output tray (normal position)	Output tray (forward position)	Actual Bail Length	Notes
5E4754	26" Wire catch (output)	24.5"	26.5"	30.5"	22.228"	
9E3216	30" Wire catch (output)	28.5"	30.5"	34.5"	26.228"	
9E5277	34" Wire catch (input/output)	35"	37"	41"	32.228"	100 document maximum

➤ **Ultra-lightweight Consumable Kit**

This consumable kit is for customers who are scanning very thin documents. This kit contains components designed to improve feeding of a paper weight range of 25 g/m² to 75 g/m² kg (7 to 20 lbs).



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ACTION

Identify any accessories that the customer may find useful in improving productivity.

OCF AND TOUCHSCREEN OVERVIEW

In order to make the *Kodak i1800 Series Scanner* as easy to use as possible it was designed with a full color touchscreen. All of the operator functions of the scanner are available (in several languages) through the Operator Control Panel (OCP). This section describes the use and maintenance of the OCP. Both the Image Address - Enabled and Image Address - Disabled versions of the touchscreen will also be described. (The version that your site will not be using can be ignored.)

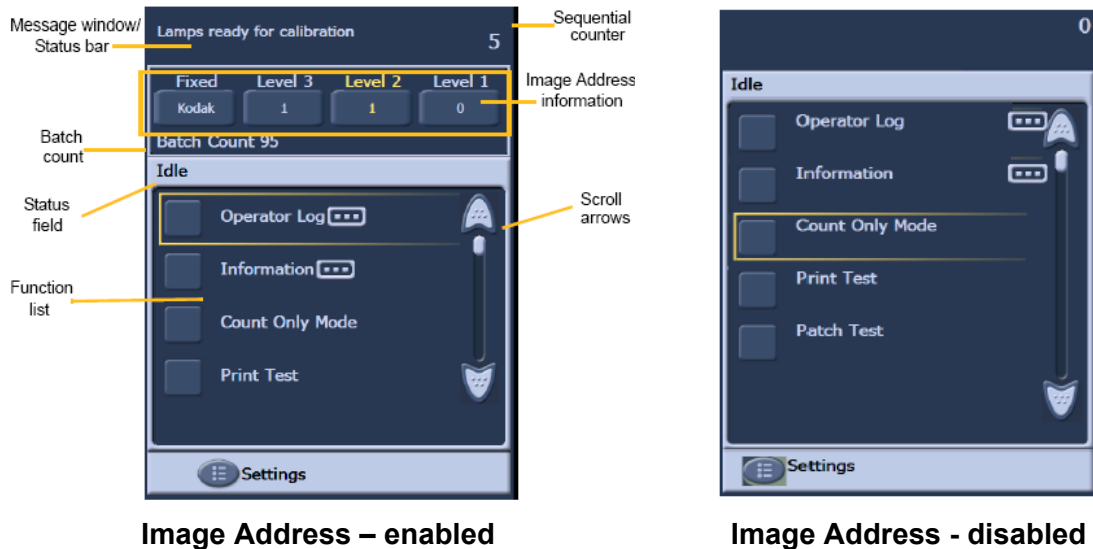
ACTION

If the instruction has not already done so, they should put the scanner in the Image Address mode that the customer will be using. It is not expected that a scanner operator would need, or be expected to, change between Image Address - Enabled and Image Address - Disabled modes.

Only use your fingertip when touching the touchscreen. The touchscreen is not designed to be used with a stylus. Use of a stylus or other instrument could damage the touchscreen and is not covered under the scanner's warranty or under the terms of any Service Agreement.

➤ IDLE

When the scanner is first powered up, it comes to the Idle screen. At this point there are several screens that can be entered to test the scanner and review scanner information and logs. Scanning cannot be started until the host computer has setup the scanning job.



- Review the different fields of the Idle screen.

- Viewing the Operator Log
 - This log is reset whenever the scanner is powered off but the messages are still available through the internal scanner log visible through SVT (Scan Validation Tool)
 - Log messages with a time stamp of 12:00:00 are normal when first powering on the scanner. These messages happened before the scanner was able to connect to the host computer and determine the local time.
- Information
 - Last image Address / Total documents Scanned / Firmware version
- Count Only mode
 - This function can be used if you just want to count the pages in a batch but not scan them. This can also be used to run the transport cleaner sheets during maintenance.
- Print Test
 - Prints ladder test pattern (see BASIC PRINT section for more information)
- Patch Test
 - This function can be used to test the quality of your patch sheets. If your patch sheets are not being read by the scanner, run this test to find any poor quality patch sheets.

➤ SETTINGS

- **Volume:** used to change the volume of the scanner speaker.
- **Tones:** used to change the alert tones used for functions, such as, multifeed alert. This is useful if more than one scanner is in the same area.
- **Language:** the language that is used for the buttons on the OCP can be changed with this function. The operator can easily select whichever language they are most comfortable with without rebooting the scanner.

ACTION

Each student should navigate through the menus on the touchscreen and perform the following:

- View the Message Log screen.
- View the Scanner Information screen.
- Scan a stack of documents in Count Only mode.
- If using printing, put some plain white paper in the feeder and run a print test.
- If using patch sheets, put some patch sheets in the feeder and run a patch test.
- Set the Volume, Tones and Language to their personal preferences.

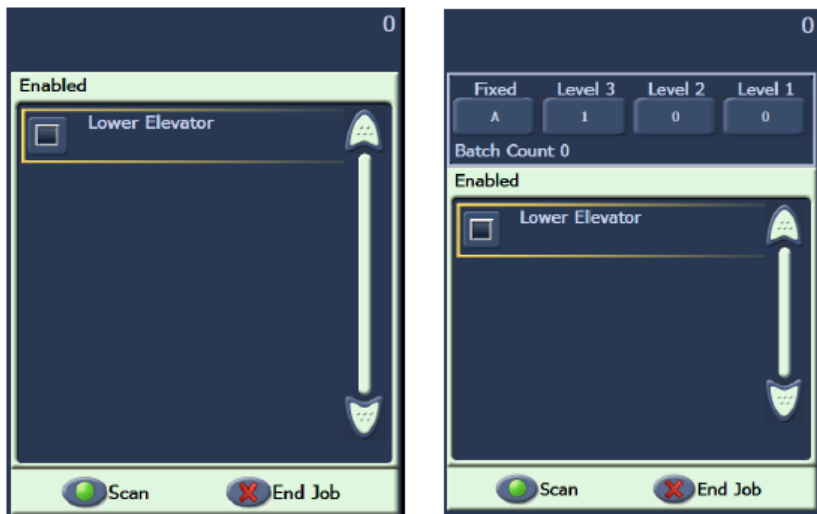
➤ **ENABLED screen**

Before you start scanning, the host scanning software must set up the scan job in the scanner. After the scanner is set up, the host software can either automatically start scanning or can have the scanner wait until scanning is started by the operator.

If auto-start scanning is enabled, and there is paper in the input tray, the scanner will automatically start feeding paper.

If there is no paper in the input tray and the scanner is enabled with auto-start, a 10-second count down will be displayed. During that time period, paper can be added to the input tray to automatically start scanning.

If the scanner is not set up to auto-start, the touchscreen will look like the following screen. You may add more paper to the input elevator, if needed, then touch the **Scan** button to start the feeder.

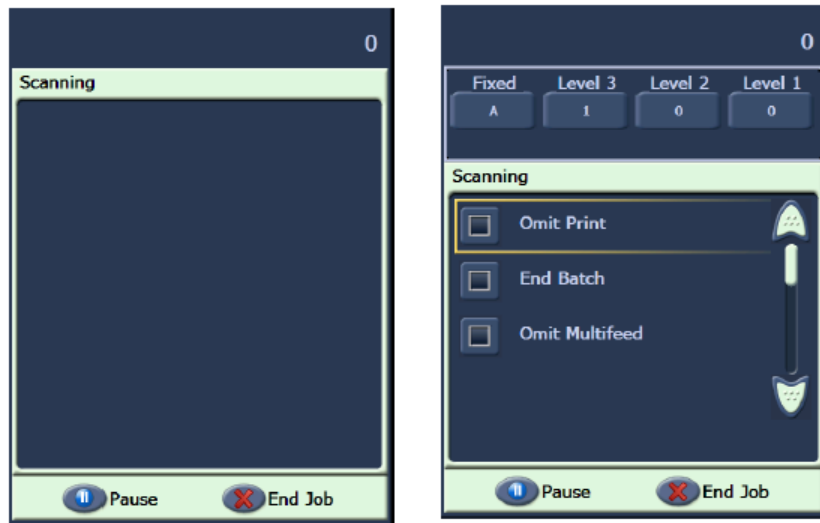


Enabled - Image Addressing - off Enabled - Image Addressing - on

➤ **SCANNING screen**

When the scanner is feeding paper, the touchscreen shows the Scanning screen. There may be up to three function buttons available on this screen. The host computer scanning software determines the function buttons that are displayed. There is always a Pause button available that can be used to stop the documents from feeding into the scanner. If the Pause button is touched, you will be able to start scanning again with the Scan button. While you are scanning, the number of pages fed will be counted in the top right of this screen.

If you have Image Addressing enabled, the Image Address window will be displayed. The Image address of the next document to be scanned will be displayed in this window. If you need to manually increase the image address, you can touch one of the Level buttons. Finally, if your host computer scanning software has enabled the batching feature, the current Batch Count will be displayed in the lower left side of the Image Address screen.



Scanning - Image Addressing - off Scanning - Image Addressing - on

ACTION

The instructor should start a scanning job from SVT (*Settings Shortcut - Color Document*) that does not have Automatically start scanning or the Save Images To Files options enabled. The operator should scan documents and use the Pause button.

➤ **Power Saver window**




If the Power Saver feature has been enabled by your host scanning application, the Power Saver Count Down window will be displayed if the scanner is left idle. The time before this message may be between 5 and 60 minutes. If the Close button is not touched before the timer reaches 0, the scanner will shut down. To wake up the scanner either add or remove paper from the input tray.

SCAN VALIDATION TOOL

Your company will have purchased one of the many production scanning applications that support the i1800 Series Scanner for your daily scanning needs. There is a scanning utility called the Scan Validation Tool that has been installed on your host computer. This utility can be used for tasks such as viewing the complete Scanner Operator Log or checking that the scanner is functioning correctly when trying to determine if there is a problem with the scanning software or hardware. This utility allows access to two different software drivers (TWAIN and ISIS). This class will not cover all the options available on the scanner. The TWAIN driver will be used to access the logs. For more information on the driver options, refer to the Image Processing Guide mentioned earlier in this class.

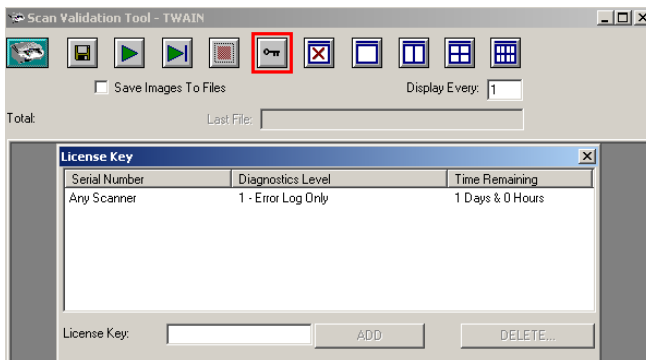
➤ Starting SVT

From the Start menu on the host computer select:

1. All Programs
2. Kodak
3. Document Imaging
4.  Scan Validation Tool

➤ License key - Key icon

During a support call, Kodak Support may provide an 8-character code (such as WPM3POYQ) that you will be asked to enter into the License Key window. This allows you access the scanner logs that may be needed to determine if there is a problem with the scanner. The code must be entered in uppercase letters and will only be active for one day.



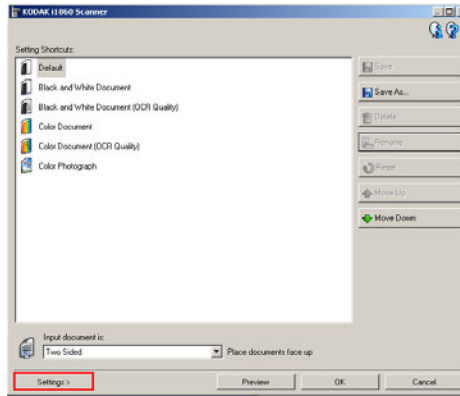
➤ **Accessing the Scanner Log**

To access the full Operator Log in the scanner from SVT follow these steps:

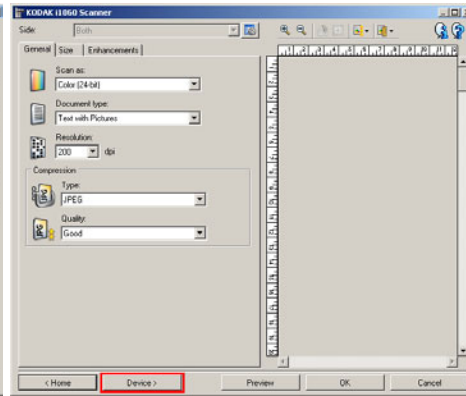
1. Click the **SVT Setup** button.



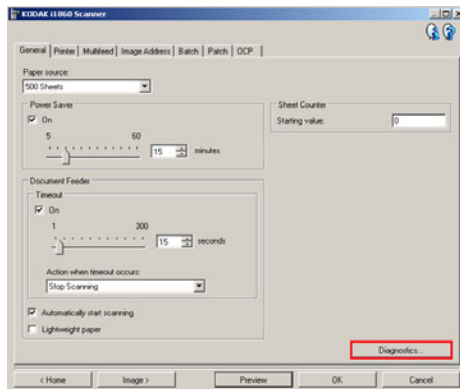
2. Click the **Settings** button.



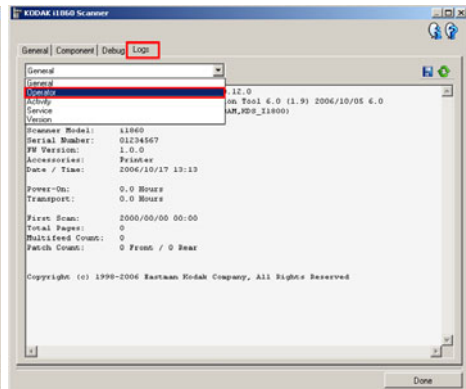
3. Click the **Device** button.



4. Click the **Diagnostics** button.



5. Click the **Logs** tab and select **Operator Log**.



NOTE: Operator Log entries with a date and time of **01/01/1970 00:00** are normal when the scanner is first turned on. The scanner uses this default time and date for all logs until the scanner can connect to a host computer and download the current local data and time.

[01/01/1970 00:00 docs=682] id=020 Power on self test completed
[01/01/1970 00:00 docs=682] id=280 Lamps ready for scanning
[01/01/1970 00:00 docs=682] id=359 Lamps not ready for scanning

ACTION

Each student should launch the Scan Validation Tool and navigate to the full Operator Log.

TROUBLESHOOTING

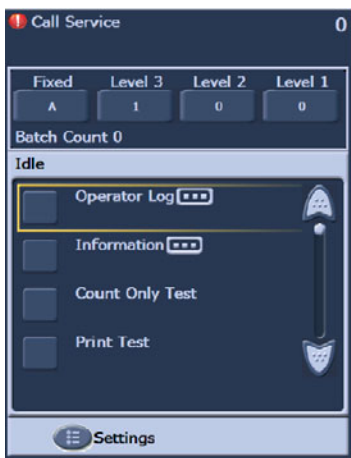
As you operate the scanner, there may be problems that need to be corrected by the operator. This section covers the most common causes of scanner stoppages and how to correct them.

➤ Operator Control Panel Messages

There are many different messages that can be displayed on the Message window of the Operator Control Panel. To find more information on any of these messages refer to the section entitled, “Message Listing” in the User’s Guide, Chapter 6, *Troubleshooting*.

Lamps ready for scanning	280	<i>Informational message.</i> The lamps are warmed and scanning can be initiated.
--------------------------	-----	---

If a *Call Service* message is displayed, the scanner will need to be powered off and on before you can continue to scan. If the *Call Service* message is displayed again, the operator should write down the message code of the *Call Service* message in the Operator Log along with what action was being performed when the message was displayed (powering on/jam recovery/color scanning, etc.). Kodak Service should then be called.



➤ Document Jam Clearing

If a document fails to exit from the transport, the scanner will display a *Jam In Transport* message. To recover from a jam you should:

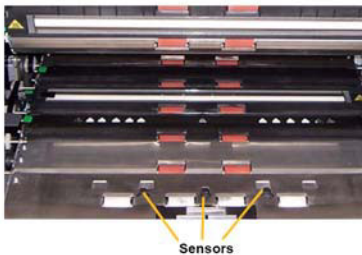
NOTE: The following procedure is a general guideline. Your procedure may be different depending on how your application is set up.

1. Remove the documents that have been scanned from the output tray.
2. Open the pod.
3. Remove any jammed documents from inside the transport.
4. Close the pod.
5. Verify the last document that was scanned correctly.
6. Place any documents that were not scanned at the top of the batch.

The scanner pod must be opened when clearing a jam to ensure that all paper has been cleared from the transport. There is no jog transport button. Note that there are different tones for a multifeed alert and a jam alert.

➤ Multifeed Messages and Alarms

The i1800 Series Scanner has three ultrasonic multifeed detectors in the transport.



These sensors use sound waves to determine if two or more documents go through the transport at the same time. The multifeed detection system can be set to one of three settings:

- **Alarm only:** the scanner transport will not stop if a multifeed is detected but only the alarm will sound.
- **Alarm – Stop the transport and disable scanning:** the scanner transport will stop if a multifeed is detected, the alarm will sound and the scanner will need to be re-started from the host before scanning can continue.
- **Alarm – Stop the transport and keep the scanner enabled:** the scanner transport will stop if a multifeed is detected and the scanner can be re-started by touching the Scan button on the touchscreen.

There are two situations that can interrupt scanning that are related to multifeed messages.

➤ **True Multifeed alarms:** true multifeeds are experienced when more than one document is fed at a time. The following is a list of common causes and resolutions for this problem.

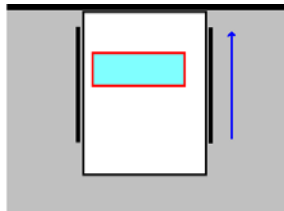
- **The documents are physically stuck together.**
 - Check for a glue edge from a multi-part form.
 - Check that stapled edges are not crimped together.
 - Tear off edges can also bind together causing multifeeds.
 - Pages that have been pressed together for long periods of time can often become stuck together.

The solution to this problem is spending more time in document preparation. The input stack must be fanned and folded in order to get an air gap between the pages.

- **The documents are stuck together due to static.**

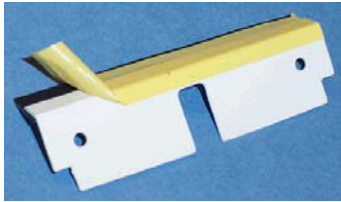
Often pages of a stack of documents can become stuck together due to static adhesion. The best solution to this problem is to increase the humidity in the scanning area to help prevent the buildup of static.
- **The documents are not all justified to the front of the stack.**

If feeding mixed-sized documents, all documents must be justified to the front edge of the input tray. If a check-size document is not front-justified, it may not get separated and will travel through the transport riding on top of a larger document.



Again, careful document preparation is needed to correct this problem. If hand jogging is not sufficient to correct the problem, there are electric paper joggers that can be purchased.

- **The consumables are worn or not installed properly.**
If the pre-separation pad is not installed correctly or is worn, the document separation efficiency will be greatly reduced. It is also important that the tires on the separation roller are clean and not worn.
- **The pre-separation pad is not providing enough friction.**
The pre-separation pads on the i1800 Series Scanner come with a piece of slippery yellow tape covering the lower portion of the pad. This tape was added to prevent documents from stubbing on the lower portion of the pad and not entering the feeder. If your documents are double-feeding, this tape can be removed from the pad. This will provide greater document separation. If your documents are not double-feeding the yellow tape should be left on the pre-separation pad.



- **The pre-separation pad was stuck down.**
The bottom side of the black rubber strip on the pre-separation pad has a wax paper covering an adhesive. The paper covering the adhesive should never be removed. If the black strip is stuck to the separation roller covering, the pre-separation pad will not provide enough drag on the paper to provide document separation.
- **False Multifeed alarms:** False multifeed alarms are experienced when the ultrasonic multifeed detection systems triggers an alarm when there is only one document in the transport. The following is a list of common causes and resolutions for this problem:
- **The page has a physical attachment.**
If you are scanning a page that has 'sticky notes', stickers (such as a barcode labels) or has a check taped to it, the multifeed detection system will trigger a multifeed alarm. If the attachments cannot be removed before scanning, and the attachments are all on one side of the document, the multifeed sensor for that area of the document may be disabled within the host software.
 - **The documents are very thick.**
The ultrasonic multifeed detection system may trigger a false multifeed alarm when scanning a very thick document. If many of the documents to be scanned are thick, the sensitivity of the multifeed detection system can be set to LOW to prevent this problem. Note that some true multifeeds may not be detected with multifeed sensitivity set to LOW.

- **The input stack contains folded pages or envelopes.**

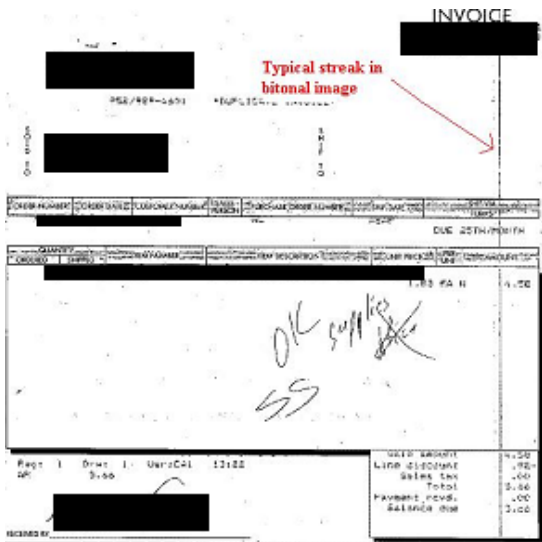
The ultrasonic multifeed detection system cannot distinguish between the two sides of an envelope or folder and a true multifeed of single pages. If envelopes or folders are being scanned, multifeed detection should be disabled or set to alarm only.

- **The ultrasonic sensors are dirty.**

The ultrasonic multifeed detection system may trigger a false multifeed alarm if paper or dust accumulates in the sensors. The sensors should be cleaned during maintenance.

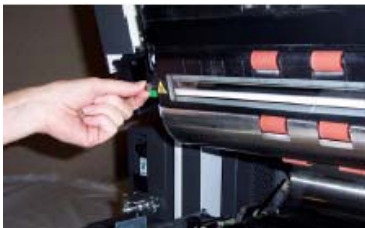
➤ **Vertical lines**

As was stated in the *Maintenance* section, “The most frequent image quality problems that are reported with document feeding scanners are lines or streaks in the scanned image and black image borders, which are almost always caused by dust on the imaging components of the scanner.” The i1800 Series Scanner was designed to minimize this problem but it can still occur if the image path is obstructed.



➤ **Lines on the front images.**

To correct this problem for the front side images, remove the upper imaging guide and thoroughly clean it using a Staticide wipe. For best results, the wipes should be allowed to dry out for a few seconds after removal from the packaging so they produce a clean streak free guide. Remember to clean the front and the back side of the imaging guide. After the imaging guide has been cleaned, it should be inspected for scratches. If the imaging guide is scratched, it must be replaced. Replace the imaging guide carefully without touching the glass areas.



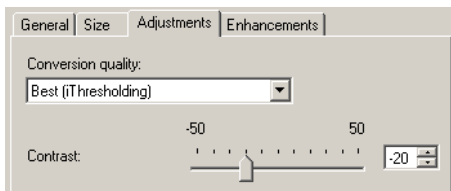
➤ **Lines on the rear images**

To correct streaks on the rear side images, you must follow the same procedure, as previously noted, for the front imaging guide. The rear imaging guide is located in the base of the transport. Before re-installing the rear imaging guide, clean the cover glass that is located between the two lamps in the base of the transport. Just as with the imaging guides, use a slightly-dried Staticide wipe to wipe the entire width of the imaging guide.



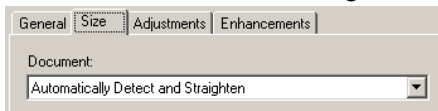
➤ **Lines on front or rear black and white images** (changing binarization settings.)

If you find that you need to frequently clean your scanner to prevent streaks in your black and white images then, consider modifying your 'conversion quality' or binarization settings. If you are using the 'Best (iThresholding)' setting (your scanning software may use a different name) then you may find that decreasing your Contrast value will greatly reduce the frequency of lines in your images.



➤ **Large black borders on images or images look too small in the viewer.**

The i1800 Series Scanner is normally setup to 'Automatically Detect and Straighten' documents as they are being scanned. Your software may call this feature 'Auto-crop and De-skew' or some similar name, but the function is the same. This feature will allow the scanner to create straight images of only the page that was scanned.

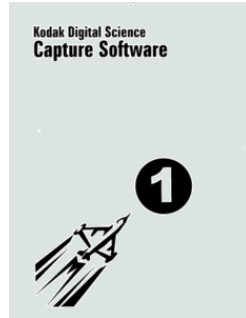


If the black backgrounds of the scanner become scratched or dirty, so that they reflect light, then the Automatic Detect and Straighten feature of the scanner may incorrectly identify the edge of the page and leave a large black border on one side of the document. This problem may also be created by dust or debris that reflects light on the imaging guides or cover glass.

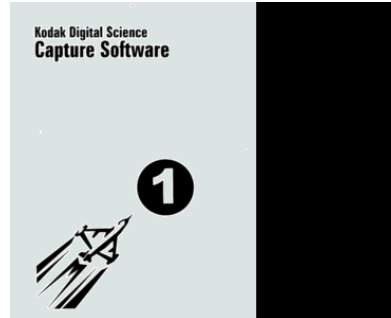
Examples:



A
This represents what a scanned document without the **Automatically Detect and Straighten** option may look like in a viewer of a host scanning application.



B
This is the same document scanned with the **Automatically Detect and Straighten** option enabled.



C
This is what the same document may look like in the host software viewer if there was a scratch or reflection off the right side of the black background for the front side scanning.



D
This is what the same image (as shown in item C) would look like in a host scanner software image viewer that auto-sized the scanned image to fit in the viewer window.

SERVICE ISSUES

The information provided in this section is related to Service and Support in the United States and Canada only. Kodak provides Service and Support for our products in many countries around the world. For countries other than the United States and Canada, the instructor will provide you with the correct information for your local Kodak Service area.

As you operate the scanner, there may be problems that cannot be corrected by the operator. This section will cover everything you need to know about contacting Kodak Service.

Open the User's Guide to Chapter 1, *Contacting Service and Support*.

Phone numbers for the United States and Canada:

Kodak Field Service: 1-800-356-3253 (1-800-3KODAK3)

This number can be used to contact your local Field Engineer to schedule a site visit to correct a problem with the scanner or to schedule your next preventive maintenance visit.

Your Reseller: _____

The Kodak Value Added Reseller will be glad to help you with many of your support needs. Write their phone number here so you will have it whenever you need to purchase Support Contract upgrades or other custom services they may offer.

Services: 1-800-525-6325 (1-800-52KODAK)

Kodak has many professional services designed to help you be successful in your business. Call this number to inquire about additional scanner operator training, Kodak software application training or information about scanner relocation services.

➤ **Contacting Service**

There are a few things you can do to help Kodak Service assist you better when contacting us. Please have these items available when you make the call.

- Your Kodak Scanner's K-Number.
- Any error code numbers that may be in the Operator Log.
- A complete description of the problem.
- A contact name and phone number where the Field Engineer can return the call.



➤ **Service Agreements and Upgrades**

Your local Field Engineer can provide with you with the response time details and covered service hours for your scanner when it is under Warranty or covered by a Kodak Service Agreement. A standard Service Agreement includes two preventive maintenance visits per year. Upgrades for Service Contracts are also available. For additional details, talk with your Field Engineer or call the number previously listed for support services.

ACTION

Each student should know where to find the K-Number and what numbers to call for support.

SAFETY

Open the User's Guide to Chapter 1, *Safety Information*.

- **Warning Labels:** Note all warning labels when operating and maintaining the scanner.



CAUTION: Moving parts, avoid contact.



CAUTION: Hot surface, avoid contact.

- **User Precautions:** Users and their employer need to observe the common sense precautions applicable to the operation of any machinery. These include, but are not limited to, the following:
- Do not wear loose clothing, unbuttoned sleeves, etc.
 - Do not wear loose jewelry, bracelets, bulky rings, long necklaces, etc.
 - Hair length should be kept short, using a hair net if needed, or tying long hair up in a bundle.
 - Remove all other loose objects from the area that could be drawn into the machine.
 - Take sufficient breaks to maintain mental alertness.
 - Use only the recommended cleaning supplies.
 - Do not use canned/compressed air.

Supervisors should review their practices and make compliance with these precautions as part of the job description for operation of the scanner or any mechanical device.

- **Flammable Compressed Air and Cleaners:** use of compressed air in the maintenance of the scanner is not recommended. Operators should NEVER use flammable compressed air or flammable cleaners when maintaining this equipment.

OTHER ISSUES

➤ **Purchasing Consumables**

Most Value Added Resellers (VARs) offer the recommended Kodak consumables for sale to their customers. If you need assistance in finding a channel for purchasing your consumables, talk with your instructor or Kodak Field Engineer.

Kodak

